

USSN: 10/810,069

Attorney Docket No.: 55752US018

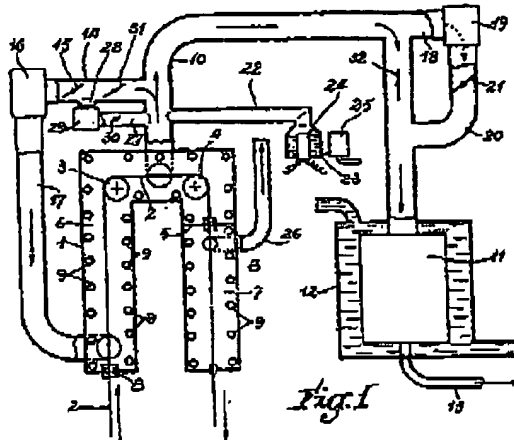
Remarks

The copending application information in paragraph 0065 has been updated. New claims 54-61 have been added to recite a process or apparatus supplied with one or more streams of conditioned gas "distributed at a substantially uniform rate across the substrate width" or a process or apparatus wherein the distributed streams of gas "do not disturb the coating sufficiently to cause mottle or other defects". Antecedent basis for these new claims may be found in the written description at, e.g. paragraph 0082 and in Fig. 4 and Fig. 5.

Applicant thanks the Examiner for extending to the undersigned attorney and attorney. Pamela L. Stewart the courtesy of an in-person interview on Friday, February 11, 2005, during which the arguments set out below were discussed.

Rejection of Claims 1, 9, 10, 11, 12, 15, 16, 22, 25, 26, and 52 under 35 USC §102(b)

Claims 1, 9, 10, 11, 12, 15, 16, 22, 25, 26 and 52 were rejected under 35 USC §102(b) as being anticipated by Vial (GB 713,612). Vial describes a drier 1 for drying a varnish on moving band 2 by removing an alcoholic solvent from the varnish as band 2 passes through chambers 6 and 7 (see e.g., page 2, lines 105-130 and Fig. 1, shown below):



Applicant does not concede that Vial describes a close-coupled enclosure. In any event, Vial does not show or discuss his coating applicator. Presumably it is a conventional open-air coating device. Vial does not show a process comprising conveying a substrate "past a coating applicator and to a dryer or curing station in a close-coupled enclosure or series of interconnected close-

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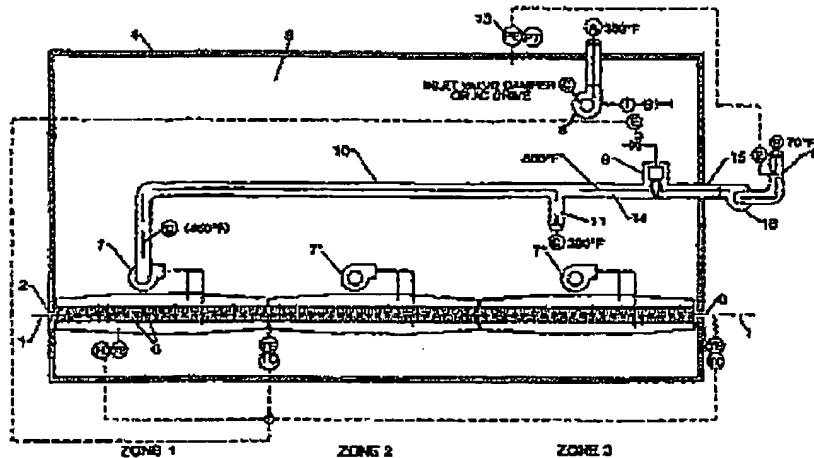
coupled enclosures". Applicant accordingly requests withdrawal of the rejection of claims 1, 9, 10, 11, 12, 15, 16, 22, 25, 26 and 52 under 35 USC §102(b) as being anticipated by Vial.

Rejection of Claims 1 and 12-14 under 35 USC §102(b)

Claims 1 and 12-14 were rejected under 35 U.S.C. §102(b) as being anticipated by Seidl (US 5,528,839), on grounds that:

"Seidl shows conveying the substrate past a coating applicator (col. 2, line 52) and to a dryer or curing station in a close coupled enclosure or series of interconnected close coupled enclosures while supplying the enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to reduce materially the particle count in the close coupled enclosure (fig. 1, col. 3, lines 40-44), supplying conditioned gas streams to a plurality of close coupled enclosures and withdrawing gas from a plurality of close coupled enclosures (fig. 3), supplying conditioned gas streams to each is a series of interconnected close coupled enclosures (fig. 3), sealing the moving substrate at the upstream and downstream ends of a series of interconnected close coupled enclosure (col. 3, lines 40-44)." (See the Office Action at page 4, first full paragraph).

Applicant respectfully disagrees. Seidl describes a drier 4 for removing solvents from a coating (e.g., an ink) on a moving web 1 as web 1 passes between upper and lower air jet nozzles 6 (see e.g., col. 2, lines 51-55 and Fig. 1, shown below):



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Applicant does not concede that Seidl describes a close-coupled enclosure. In any event, and notwithstanding the Office Action's citation to Seidl at col. 2, line 52, Seidl does not show or discuss his coating applicator. Seidl does not show a process comprising conveying a substrate "past a coating applicator and to a dryer or curing station in a close-coupled enclosure or series of interconnected close-coupled enclosures". Note as well that Seidl's air jet nozzles 6 are supplied with an 800° F heated gas stream flowing past burner 9 and a 380° F dilution stream flowing through recirculation duct 11 (see also the combustion products that pass through duct 103 in Seidl's Fig. 4 embodiment). The combustion products that pass into Seidl's drier would materially *increase* the particle count inside the drier. Thus Seidl does not supply an enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to reduce materially the particle count in the enclosure. Applicant accordingly requests withdrawal of the rejection of claims 1 and 12-14 under 35 USC §102(b) as being anticipated by Seidl.

Rejection of Claim 53 under 35 USC §102(b)

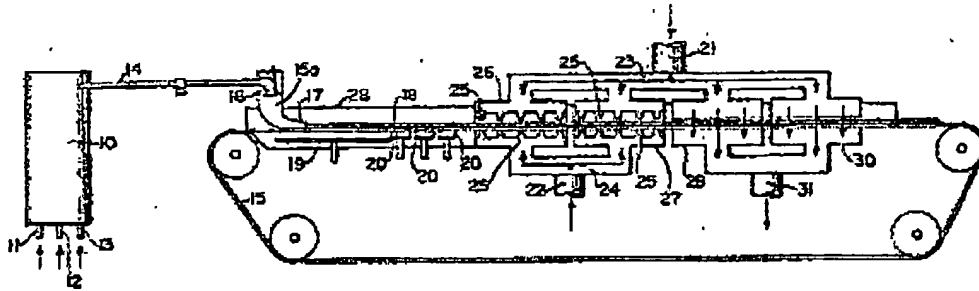
Claim 53 was rejected under 35 USC §102(b) as being anticipated by Friedberg et al. (US 3,542,640), on grounds that:

"Friedberg shows An apparatus for coating a moving substrate of indefinite length comprising a coating applicator (17, fig. 1), dryer or curing station and substrate-handling equipment for conveying the substrate past the coating applicator and through the dryer or curing station (26, 15, fig. 1), the substrate being enveloped from at least the coating applicator to the dryer or curing station in a close-coupled enclosure or series of close-coupled enclosures supplied with one or more streams of conditioned gas blowing at a rate sufficient to cause a material change in a physical property of interest for the atmosphere in a close-coupled enclosure (fig. 1, col. 5, line 17-20)." (See the Office Action at page 4, second full paragraph, emphasis added).

Applicant respectfully disagrees. Friedberg et al. show an apparatus for depositing a wet cellulosic fiber on a foraminous support 15 and drying the foam by first passing it over pan 19 and vacuum boxes 20, followed by exposing the foam to 200-400° F hot air blown on the foam through impingement nozzles 25, followed by exposing the foam to 200-300° F hot air blown through the foam as it passes through chambers 29 and 30:

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Friedberg et al.'s apparatus can deposit foam at thicknesses from about 1/2" to about 6" (see e.g., col. 3, lines 74-75). The foam sheet 18 shown in Friedberg et al.'s Fig. 1 appears to be near the upper end of that range (since the sheet 18 nearly touches the upper air impingement nozzles 25).

Based on measurements made on an enlarged printout of Fig. 1, foam sheet 18 may be approximately 5" (13 cm) thick. Similar measurements indicate that when making a 6" foam sheet, the total headspace plus footspace in Friedberg et al.'s apparatus would be about 18" (46 cm) over pan 19, about 16" (41 cm) over the vacuum boxes 20, about 14" (36 cm) in the portions between adjacent air impingement nozzles 25 and about 31" (78 cm) in chambers 29 and 30. Friedberg et al.'s apparatus does not provide a "close-coupled enclosure" as defined by applicant (see e.g., paragraphs 0041 through 0043). Applicant accordingly requests withdrawal of the rejection of claim 53 under 35 USC §102(b) as being anticipated by Friedberg et al.

Conclusion

Neither Vial nor Seidl shows a process comprising conveying a substrate "past a coating applicator and to a dryer or curing station in a close-coupled enclosure or series of interconnected close-coupled enclosures". Seidl does not supply an enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to reduce materially the particle count in the enclosure. Friedberg et al.'s apparatus does not provide a "close-coupled enclosure". None of these cited references anticipates the rejected claims. The Examiner is encouraged to telephone the undersigned attorney at 612-331-7412 if there are any questions regarding this amendment.

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